

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* ROBERT R. REED

---

Appeal 2007-1763  
Application 10/036,839  
Technology Center 2600

---

Decided: November 8, 2007

---

*Before:* LANCE LEONARD BARRY, ALLEN R. MACDONALD, and  
JOHN A. JEFFERY, *Administrative Patent Judges.*

MACDONALD, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals the Examiner's Final Rejection of claims 10-12 and 18-21 under 35 U.S.C. § 134. Claims 1-9 and 13-17 have been indicated as containing allowable subject matter (Br. 2). We have jurisdiction under 35 U.S.C. § 6(b).

Appellant invented a wireless communication system, method, and handset for invoking functions based on the angle between first and second rotatable portions of the handset. (Specification 4:14-25.)

Claim 21 is exemplary and is reproduced below:

21. A wireless communication handset, comprising:

first and second rotatably coupled housing portions,

the first and second housing portions rotatable in corresponding first and second substantially parallel planes;

the wireless communications handset in a first operating mode when the first and second housing portions are rotated to a first angular configuration,

the wireless communications handset in a second operating mode when the first and second housing portions are rotated to a second angular configuration,

the wireless communications handset in a third operating mode when the first and second housing portions are rotated to a third angular configuration.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Colonna	US 6,115,620	Sep. 5, 2000
Courtecuisse	FR 2 679 086	Jul. 15, 1993

Claims 10-12 and 18-21 stand rejected under 35 U.S.C. § 103(a) over the teachings of Colonna and Courtecuisse.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellant have been considered in this decision. Arguments which Appellant could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

We affirm.

#### FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

##### *Courtecuisse*<sup>1</sup>

1. Courtecuisse teaches a phone with a casing 10 and a flap 24. (Pg. 3, ll. 27-29.) Courtecuisse teaches that casing 10 and flap 24 are interconnected using a hinge 26. (*Id.*)
2. Courtecuisse teaches that the flap can move relative to casing 10 by swinging, pivoting, or sliding. (Pg. 3, ll. 27-33; Pg. 4, ll. 12-23; and Figs. 2-4.) In the pivoting configuration, flap 28 moves relative to casing 10 by rotating in a plane substantially parallel to that of casing 10. (Pg. 4, ll. 12-23 and Fig. 3.)

---

<sup>1</sup> We rely on, and cite to, an English language translation of this French patent application.

3. Courtecuisse teaches forming an electrical connection between an antenna and electronic circuits in the casing by contact between a disk in the flap and another disk in the casing. (Pg. 4, ll. 1-11.)  
Accordingly, Courtecuisse teaches that operation of the phone depends on the movement of the flap relative to the casing 10. (*Id.*)

*Colonna*

4. Colonna teaches a wireless phone that has a first housing element 202 and a second housing element 204. (Col. 3, ll. 61-65 and Fig. 2.)
5. Colonna teaches that the first housing element 202 and second housing element 204 are coupled together by a hinge 220. (Col. 3, ll. 65-67.)  
The first housing element 202 and second housing element 204 open and close by swinging about hinge 220 in a swinging configuration. (*Id.*)
6. Colonna teaches that the mode of operation of the phone is based on an angle formed between the first housing element 202 and second housing element 204. (Col. 4, ll. 2-9; Col. 5, ll. 41-45; and Col. 6, ll. 34-38.)
7. Colonna teaches that a first mode of operation is the private-mode configuration. (Col. 4, ll. 2-9.) A second mode is the speakerphone configuration. (Col. 5, ll. 41-45.) An additional third mode is the standby mode configuration. (Col. 6, ll. 34-38.)
8. Colonna teaches that a cam 618 has valleys, slopes, and peaks. (Col. 8, l. 18 – Col. 9, l. 14 and Figures 5 and 6.) Colonna teaches that each angular configuration between the first housing element 202 and the

second housing element 204 is formed by resting of cam followers 612 and 613 into particular locations on cam 618. (*Id.*) Colonna teaches that spring 622 applies a force to position cam followers 612 and 613 into locations on cam 618. (Col. 8, ll. 45-54.) Colonna teaches that first housing element 202 and second housing element 204 snap into angular configurations. (Col. 8, ll. 45-54 and Col. 9, ll. 4-8.)

Accordingly, Colonna teaches that a snapping sensation is made for configurations of first housing element 202 and second housing element 204. We find that a snapping sensation is discernable to the human senses of touch and hearing.

#### PRINCIPLES OF LAW

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S. Ct. at 1734 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls."). The Court

in *Graham* further noted that evidence of secondary considerations, such as commercial success, long felt but unsolved needs, failure of others, etc., "might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." 383 U.S. at 17-18. "If a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid under § 103." *KSR*, 127 S. Ct. at 1734.

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *Id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11 How. 248 [(1850)]." *KSR*, 127 S. Ct. at 1739 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966)), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740.

The Federal Circuit recently concluded that it would have been obvious to combine (1) a device for actuating a phonograph to play back sounds associated with a letter in a word on a puzzle piece with (2) a processor-driven device capable of playing the sound associated with a first letter of a word in a book. *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485

F.3d 1157, 1161 (Fed. Cir. 2007). In reaching that conclusion, the Federal Circuit recognized that "[a]n obviousness determine is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Id.* at 1161 (citing *KSR*, 127 S. Ct. 1727, 1739 (2007)).

Although the combination of prior art references lacked a "reader" to automatically identify the book inserted in the device, the Federal Circuit found no error in the District Court's determination that readers were well known in the art at the time of the invention. *Id.* at 1162. In addition, the Court found that the reasons for adding a reader to the combination of prior art references "are the same as those for using readers in other children's toys-namely, providing an added benefit and simplified use of the toy for the child in order to increase its marketability." *Id.* at 1162. The Federal Circuit relied in part on the fact that Leapfrog had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id.* (citing *KSR*, 127 S. Ct. at 1740-41).

## ANALYSIS

### *35 U.S.C. § 103(a)*

#### *Claims 10, 12, 18, and 21*

#### Swivel Phone Configuration

Claims 10, 18, and 21 require housing portions that are coupled to one another and rotate in substantially parallel planes.

In his pre-*KSR* Brief, Appellant argues that there is no reason or motivation to replace Colonna's flip configuration with Courtecuisse's swivel configuration but that the Examiner is motivated only by hindsight. (Br. 5, 8-9, and 13.) Appellant further argues that the use of Courtecuisse's swivel configuration in Colonna defeats Colonna's object of providing a housing configuration that prevents use of the device too near to the user's ear during speakerphone mode and such object would dissuade one of ordinary skill in the art to combine the teachings of Colonna with those of Courtecuisse or modify the teachings of Colonna to arrive at the two portions of a phone rotating in the same plane. (App. Br. 5, 8-9, and 13.)

In part, the Examiner responds by stating that "this modification is also suggested by the secondary reference Courtecuisse in which the rotating secondary housing portion 28 (fig. 3) is also modified as a slidable section 32 (fig. 4) and a flipable housing portion 24 (fig. 2)." (Answer 12.)

Therefore, the issue is whether the substitution of Courtecuisse's swivel configuration in place of Colonna's flip configuration is proper.



Where, as here, "[an application] claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result," *KSR*, 127 S. Ct. at 1740 (citing *United States v. Adams*, 383 U.S. 50-51 (1966)). On the very same drawing sheet that shows a swivel phone configuration, Courtecuisse also teaches a flip phone configuration in Figure 2 (i.e., the swinging configuration) as an alternative to the swivel phone configuration (FF 2). Courtecuisse and Colonna both teach that operation of the phones depends on the angular position of one portion of the phone relative to another portion of the phone. (FF 3, 6, and 7.) We find that the Examiner's substitution of Courtecuisse's swivel phone configuration in place of Colonna's flip phone configuration to involve a mere substitution of one element for another *known in the field* that would yield a *predictable result*. Appellant has presented no evidence that implementing a swivel phone in place of a flip phone "was uniquely challenging or difficult for one of ordinary skill in the art," *Leapfrog*, 485 F.3d at 1162, 82 USPQ2d at 1692, nor has Appellant presented evidence that this "represented an unobvious step over the prior art" *id.*

Therefore, we find that the Examiner did not err by substituting Courtecuisse's swivel configuration in place of Colonna's flip configuration.

#### Invoking a Mode

Claim 10 recites, "handset in a standby mode *when* the first and second housing portions are rotated to a standby angular configuration,"

“handset in a call mode *when* the first and second housing portions are rotated from the standby angular configuration to a call angular configuration,” and “performing a first function *when* the first and second housing portions are rotated to a first function angular configuration between the standby and call angular configurations” (emphasis added). Claim 18 requires that an operating mode and a function of a handset are based on an angular configuration between a blade and a housing. Claim 21 requires that each operating mode is based on an angular configuration between first and second housing portions.

Appellant argues that the quoted sections of claim 10 as well as requirements in claims 18 and 21 preclude any other action besides placement of the housing portions in a particular angular configuration. (App. Br. 5, 8, and 12-13 and Reply Br. 3, 6, and 10.) Appellant states:

In Colonna, configuration of the housing 204 alone does not and cannot invoke the speakerphone function. Colonna categorically states that two conditions must be satisfied to invoke the speakerphone mode: 1.) configuration of the housing 204, and 2.) toggling of the activation element. Colonna, col. 6, lines 30-34, col. 5, lines 26-31.

(Reply Br. 3)

The Examiner responds by stating that the Appellant does not argue differences between the claim and the cited reference, Colonna. (Answer 11.)

Therefore, the issue is whether Colonna teaches basing a mode or function on an angular configuration between portions of a phone.

Claims 10, 18, and 21 merely require forming an angular configuration between housing portions to enter a mode and leaves open the possibility of entering the mode when another action is performed *in addition to* forming an angular configuration between housing portions. Colonna clearly teaches that a mode of operation is based on an angular configuration between housing portions. (FF 6 and 7.) Accordingly, Colonna teaches basing a mode or function on an angular configuration between housing portions.

We are unpersuaded that the Examiner erred in finding that Colonna teaches basing a mode or function on an angular configuration between portions of a phone of claims 10, 18, and 21.

Appellant stated that claim 12 stands or falls with claim 10. (App. Br. 3.) Therefore, the rejection of claim 12 is maintained because the rejection of claim 10 is maintained.

Accordingly, we conclude that the Examiner did not err in rejecting claims 10, 12, 18, and 21 under 35 U.S.C. § 103(a).

#### *Claims 11 and 19*

Claim 11 requires a “second active mode function” based on the angular configuration between first and second portions of a phone whereas claim 19 requires a “second function” based on rotation of the blade relative to the housing.

The Examiner finds that Colonna teaches that the second active mode function is a private/normal mode. (Answer 12.) In his pre-*KSR* brief, Appellant argues:

Contrary to the Examiner's assertion, Colonna disclose no more than three (3) operating modes: private-active; speakerphone, and standby.

(App. Br. 6 and 9.)

Therefore, the issue is whether Colonna teaches providing a second active mode function based on an angle between portions of a phone.

Appellant's second active mode function is essentially a fourth mode of operation because the base claims require that there are three other modes of operation. It would require no more than "ordinary skill and common sense," *KSR*, 127 S. Ct. at 1742, to design a phone having a fourth mode of operation based on an angular configuration between first and second portions of a phone. One of ordinary skill in the art would have pursued the known potential solutions to the problem of having a *fourth* mode of operation based on an angular configuration between first and second portions of a phone with a reasonable expectation of success by extending Colonna's teaching of *three* modes of operation to four modes, where each mode is based on an angular configuration between first and second housing portions of a phone (FF 7.) Appellant has presented no evidence that adding a fourth mode of operation based on an angular configuration between first and second portions of a phone "was uniquely challenging or difficult for one of ordinary skill in the art," *Leapfrog*, 485 F.3d at 1162, nor has

Appellant presented evidence that this "represented an unobvious step over the prior art." *See id.*

Colonna teaches three modes of operation, where each mode is based on the angle formed between the first housing element 202 and second housing element 204. In our view, providing additional (i.e., more than three) modes of operation based on the angle between these housing elements would have been an improvement well within the level of skilled artisans.

Accordingly, we conclude that the Examiner did not err in rejecting claims 11 and 19 under 35 U.S.C. § 103(a).

*Claim 20*

Claim 20 recites "indicating the position of the blade relative to the housing by providing a *physical sensation* when the blade is [in] the respective positions"<sup>2</sup> (emphasis added).

The Examiner finds that Colonna teaches providing a physical sensation when the blade is in the respective positions. (Answer 12.) Appellant argues that the Examiner's cited portion of Colonna does not disclose or suggest providing a physical sensation. (App. Br. 11 and Reply Br. 9.)

---

<sup>2</sup> Should there be further prosecution, we suggest inserting "in" between "blade is" and "the respective positions" in claim 20.

Therefore, the issue is whether Colonna teaches indicating the position of the blade relative to the housing by providing a physical sensation.

During examination of a patent application, a claim is given its broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted). The customary and ordinary meaning of "physical" is "relating to the body as distinguished from the mind or spirit." *The American Heritage Dictionary of the English Language* (4<sup>th</sup> ed. 2000), found at [www.bartelby.com](http://www.bartelby.com). The customary and ordinary meaning of "sensation" is "[a] perception associated with stimulation of a sense organ or with a specific body condition." (*Id.*) Accordingly, we find a "physical sensation" to be a perception associated with stimulation of a bodily sense organ or a specific body condition. Appellant's Specification describes physical sensation in a manner consistent with our construction of "physical sensation" by giving examples of tactile, snapping, and audio sensations. (Specification 7:24 – 8:8.)

Colonna teaches that a snap is made when the blade is placed in a particular angular configuration and the snap is generated by a force of a spring. (FF 8.) A snap is a physical sensation that is discernable by feel via the sense organ of touch as well as discernable as sound via the sense organ of the ears. (FF 8.) Accordingly, we find that Colonna teaches indicating

the position of the blade relative to the housing by providing a physical sensation.

Accordingly, we conclude that the Examiner did not err in rejecting claim 20 under 35 U.S.C. § 103(a).

#### CONCLUSION OF LAW

We conclude that Appellant has not shown that the Examiner erred in finding that claims 10-12 and 18-21 are unpatentable over the teachings of Colonna and Courtecuisse under 35 U.S.C. § 103(a). The rejection of those claims is affirmed.

#### DECISION

The Examiner's rejection of claims 10-12 and 18-21 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

ce

MOTOROLA INC  
600 NORTH US HIGHWAY 45  
W4 - 39Q  
LIBERTYVILLE IL 60048-5343